SPECIFICATION AMENDMENT(S)

In the Specification:

Please replace paragraph [0013] with the following amended paragraph:

[0013] Operating an optical network typically requires: A) building and maintaining network databases; and B) establishing lightpaths. For example, the network databases can include: 1) link state databases that track information (e.g., the link(s), lamda(s), lamda bandwidths, etc.) regarding adjacent optical nodes (e.g., using a link management protocol (LMP)); and 2) topology databases that track information (e.g., nodes, links, lamdas, etc.) for the physical connectivity of the nodes in a domain and/or the entire network (e.g., using OSPF-TE). In order to establish an LSP, the following operations are typically performed offline: 1) determining ~~the~~ a shortest ~~path(s)~~path/wavelength between the source and destination using a shortest path first algorithm based on the network database(s); 2) ~~determining the wavelength(s) available on these shortest path(s) based on the network database(s); 3)~~ allocate ~~a wavelength from the available wavelengths on the shortest path~~that path/wavelength (often referred to as signaling the path; effectively telling the involved optical network devices how to configure their switch fabrics; e.g., using RSVP or CR-LDP based signaling with GMPLS). Steps 1 and 2 can be reversed.

Please replace paragraph [0014] with the following amended paragraph:

[0014] There are generally three approaches to operating an optical network: 1) centralized static provisioning; 2) source based static provisioning; and 3) hybrid static

provisioning. In centralized static provisioning, a separate centralized network management server maintains a network topology database and communicates with each of the optical network devices of a network. In response to some predefined demands for an optical circuit, the network management server finds the shortest ~~path(s) and selects a wavelength(s) on one~~path/wavelength. The network management server then causes the allocation of the ~~wavelength(s)~~path/wavelength and the configuring of the switch fabrics.

Please replace paragraph [0015] with the following amended paragraph:

[0015] In source based static provisioning, each of the access nodes of the network performs the work of building/maintaining a network topology database. In response to some predefined demands for an optical circuit received by an access node, that node: 1) buffers the traffic as necessary; 2) finds the shortest ~~path(s) and selects a wavelength(s) on one;~~ path/wavelength; and 3) causes the allocation of the path/wavelength and the configuring of the switch fabrics.

Please delete paragraph number [0022].

[0022] ~~In addition, redundancy is maintained in typical optical networks using either: 1) 1+1 protected lightpaths; 2) 1:1 protected lightpaths; or 3) mesh restored lightpaths. A 1+1 protected lightpath from node A to node B is a pair of node diverse paths in the network where one of the paths is a working path, and the other is a protection path. The working path and the protection path are established at the same time; when a failure occurs over the working path, traffic is switched to the protection path. A mesh restored lightpath from node A to node B is a pair of shared resource group disjoint paths in the~~

~~network, where one of the routes is a working path and the other is a backup path. The capacity dedicated on the backup path can be shared with backup paths of other mesh-restored lightpaths. Existing optical networks use one or the other of these redundancy schemes irrespective of the criticality of the data.~~

Please replace paragraph [00111] with the following amended paragraph:

[00111] Figures 12-14 are flow diagrams illustrating the allocation of a path according to certain embodiments of the invention. Figure 12 is the flow diagram illustrating operations performed by an access node to allocate a path according to certain embodiments of the invention. The operations in Figure 12 result in: 1) update routing database message(s) being sent to the nodes along the selected path being allocated; and 2) update allocate channel message(s) being sent to certain nodes ~~that are on that path~~. Figure 13 is a flow diagram illustrating the operations performed by an access node responsive to an update routing database message according to certain embodiments of the invention; Figure 14 is a flow diagram illustrating the operations performed by an access node responsive to an update allocate channel message according to certain embodiments of the invention.

Please replace paragraph [00174] with the following amended paragraph:

[00174] In block 2225, a link addition message is transmitted to the selected nodes. As before, this link addition message will include the updated sent-to-set as opposed to the sent-to-set in the received link addition message (~~2005~~2205).

Please replace paragraph [00187] with the following amended paragraph:

[00187] In block 2435, a node removal message is transmitted to the selected nodes. As before, this node removal message will include the updated sent-to-set as opposed to the sent-to-set in the received node removal message (~~2005~~2405).